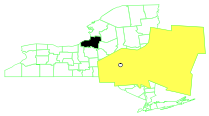
VOLNEY MUNICIPAL LANDFILL

NEW YORK

EPA ID# NYD980509376



EPA REGION 2

CONGRESSIONAL DIST. 24

Oswego County

Silk Road in Volney

Other Names:
Silk Road Landfill
Oswego Valley Sanitary Landfill

Site Description

The Volney Municipal Landfill is a closed, 85-acre, unlined landfill located at the intersection of Silk Road and Howard Road in a rural area of the Town of Volney, Oswego County, New York. The Oswego Valley Solid Refuse Disposal District Board owned and operated the landfill from 1969 to 1975, when the current owner, Oswego County, acquired it. During its operation from 1969 to 1983, the landfill accepted wastes from homes, businesses, and light industry. However, from 1974 to 1975, the landfill accepted up to 8,000 barrels containing chemical residues from a local hazardous waste treatment facility. Of these, up to 200 barrels contained liquids of unknown volume and composition. Also, from 1976 to 1978, the landfill accepted an industrial sludge, which was later identified as a Resource Conservation and Recovery Act (RCRA) hazardous waste. The County terminated disposal operations at the landfill in 1983 and finished closure of the site in 1985. Studies indicated that contaminants from the landfill had migrated into the ground water, surface water and sediments in the areas surrounding the site. Approximately 225 residents live within one mile of the site and use ground water from private wells. In addition, there are 25 households within 1,000 feet of the landfill, which also rely on ground water as their primary source of drinking water.

Site Responsibility: This site is being addressed through a combination of federal, state, and potentially responsible parties' actions

NPL LISTING HISTORY
Proposed Date: 10/01/84
Final Date: 06/01/86

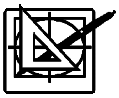
Threats and Contaminants

The ground water in the perimeter of the site contains volatile organic compounds (VOCs) (*i.e.*, benzene, toluene, and chlorinated hydrocarbons) and heavy metals (*i.e.*, arsenic, barium, cadmium, chromium, mercury, and nickel). Leachate collected from the landfill contains VOCs and heavy metals. Potential pathways of exposure to these contaminants included drinking contaminated ground water and surface water, as well as accidental ingestion of contaminated soil and sediments. Eating contaminated animals or fish also posed a health threat.

Cleanup Approach

The site is being addressed in one long-term remedial phase focusing on controlling the source of contamination (source control) and the migration of contaminants from the site (contamination pathways).

Response Action Status



Source Control: Measures to close the landfill were initiated in 1979 and were completed by 1985. These included capping the landfill top with a plastic liner, capping the sideslopes with compacted soil, installing a landfill gas collection system on the lined-top of the landfill, and installing a leachate collection system in the northern part of the site. From 1985 to 1987, a source control remedial investigation and feasibility study (RI/FS) was performed to determine the nature and extent of contamination emanating from the site and to evaluate remedial alternatives. EPA selected a remedy for the site in a 1987 Record of Decision (ROD), which required, among other things, construction of a supplemental cap (with a plastic liner) on the sideslopes of the landfill; installation of a more extensive leachate collection system, with accompanying slurry walls, *i.e.*, to include the southern part of the site; and treatment of the collected leachate, either by construction of an on-site leachate treatment plant or transportation of the leachate to an off-site treatment facility. EPA re-sampled the site in 1988 (to resolve an RI sampling problem) and, as a result, issued a Post-Decision Document (PDD) in 1989. The PDD reaffirmed the ROD remedy, but also called for a study to re-evaluate the cost-effectiveness of the slurry walls - and to make a related decision regarding off-site versus on-site leachate treatment and disposal. At this same time, it was also learned that a RCRA hazardous waste had been delivered to the landfill during 1976-78, which changed leachate treatment requirements and therefore the final design of the remedy. In addition, several unresolved hydrogeological concerns were also recognized at this time and these also required consideration in the final design of the remedy. To address these matters, two pre-remedial design studies were performed between 1990 and 1997, which culminated in EPA issuing an Explanation of Significant Differences (ESD) in August 1997 that modified part of the selected remedy. In the ESD, EPA selected the final components of the remedy, which included supplemental capping of the landfill sideslopes (as before), intermittent ground water extraction on an as-needed-basis (*i.e.*, in place of the leachate collection system

and slurry wall installation), continued leachate collection from the existing leachate collection system, off-site leachate treatment and disposal, and long-term ground water monitoring. Negotiations with 40 Potentially Responsible Parties (PRPs) for the performance of the source control remedial design/remedial action (RD/RA) resulted in the PRPs signing a Consent Decree in May 1998. The RD began shortly thereafter, and was completed in September 1999. The source control RA commenced in the Summer of 2000 and was completed in September 2001. At that time, the extraction of contaminated ground water was also initiated in response to ground water monitoring results. The extracted ground water is mixed with the collected leachate and is disposed of at a local treatment and disposal facility.

Entire Site: A contamination pathways investigation to evaluate off-site contaminant migration had been initiated in 1990, but was placed on-hold pending the completion of the source control pre-remedial design studies. The investigation was reactivated during 1998 and was expanded to evaluate the extent of natural attenuation conditions in the environs around the site and the fate of migrating contaminants. The field work was completed in 2000, and a Contamination Pathways Investigation Report was issued in November 2001. Based upon the results of the investigation, it was determined that intermittent ground water extraction and treatment, in combination with natural attenuation, will adequately address site-related ground water contamination in off-site areas and a supplemental ground water remedy was not necessary. It was also determined that the levels of contaminants that are currently present in the surface water and sediments around the site do not pose a public health threat and do not require remediation. An ESD was issued in October 2001, incorporating the monitoring of off-site wells into the source control long-term ground water monitoring and extraction contingency plan.

Site Facts: In May 1979, the State of New York entered into an Administrative Order on Consent (AOC) with Oswego County that required ground water monitoring, leachate disposal evaluation, and the development of a landfill closure plan. Closure of the landfill was completed in 1985. A Superfund-financed RI/FS was conducted from 1985-87, which was followed by the 1987 ROD and 1989 PDD. EPA and the PRPs signed an AOC in September 1990 for the conduct of the Contamination Pathways investigation and in June 1993, EPA and the PRPs signed an AOC for the conduct of a supplemental pre-remedial design study. With the completion of this latter study, a Consent Decree for the performance of the source control RD/RA was signed by the PRPs in May 1998. The Consent Decree also included the reimbursement of EPA's past remedial costs.

Cleanup Progress  ***(Threat Mitigated by Physical Clean-Up Work)***

The landfill has been fenced and capped, thus, reducing the potential for direct contact with the waste materials. Surface water controls were also significantly upgraded. The completed cap will reduce leachate generation from the site by over 99%. Leachate collection to address the downloading of moisture from the waste, will continue (the volume is expected to diminish with time). To date, approximately 2.75 million gallons of leachate have been collected and disposed of at an off-site treatment and disposal facility.

Site Repositories

Fulton Public Library, 160 South First Street, Fulton, NY 13069

EPA Region II Superfund Records Center, 290 Broadway, 18th Floor, New York, NY 10007-1866